

Lifetime Probability of Breast Cancer in American Women

A report from the National Cancer Institute (NCI) estimates that about 1 in 8 women in the United States (approximately 12.6 percent) will develop breast cancer during her lifetime.

This estimate is based on data from NCI's Surveillance, Epidemiology, and End Results Program (SEER) publication *SEER Cancer Statistics Review 1973–1996* and is based on cancer rates from 1994 through 1996. This figure includes all age groups in 5-year intervals up to an open-ended interval of 95 years and over. Each age interval is assigned a weight in the calculations based on the proportion of the population living to that age.

The 1 in 8 figure means that, if current rates stay constant, a female born today has a 1 in 8 chance of developing breast cancer sometime during her life. On the other hand, she has a 7 in 8 chance of never developing breast cancer. Because the SEER calculations are weighted, they take into account that not all women live to older ages, when breast cancer risk becomes the greatest. A woman's chance of being diagnosed with breast cancer is:*

by age 30. . . 1 out of 2,212

by age 40. . . 1 out of 235

by age 50. . . 1 out of 54

by age 60. . . 1 out of 23

* Source: Feuer EJ, Wun LM. *DEVCAN: Probability of Developing or Dying of Cancer*. Version 4.0. Bethesda MD: National Cancer Institute. 1999.

by age 70. . . 1 out of 14

by age 80. . . 1 out of 10

Ever. 1 out of 8

In evaluating cancer risk for a cancer-free individual at a specific point in time, age-specific (conditional) probabilities are more appropriate than lifetime probabilities. For example, at age 50, a cancer-free black woman has about a 2.4-percent chance of developing breast cancer by age 60, and a cancer-free white woman has about a 2.8-percent chance.

Among the racial/ethnic groups studied by SEER, white, Hawaiian, and black women have the highest levels of breast cancer risk. Asian/Pacific Islander and Hispanic women have a lower level of risk; their chance of developing breast cancer is less than two-thirds of the risk of white women. The lowest levels of risk occur among Korean, Native American, and Vietnamese women.

These probabilities are based on population averages. An individual woman's breast cancer risk may be higher or lower, depending upon a variety of factors, including family history, reproductive history, and other factors that are not yet fully understood.

The NCI is directing special attention to women with disproportionately high rates of breast cancer and poor survival rates, including members of certain minority groups and the medically underserved. Efforts targeted at these groups are under way in all components of NCI's program: basic research, early detection, clinical trials, rehabilitation, education and information dissemination, and cancer centers.

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Sources of National Cancer Institute Information

Cancer Information Service

Toll-free: 1-800-4-CANCER (1-800-422-6237)

TTY (for deaf and hard of hearing callers): 1-800-332-8615

NCI Online

Internet

Use <http://www.cancer.gov> to reach NCI's Web site.

CancerMail Service

To obtain a contents list, send e-mail to cancermail@icicc.nci.nih.gov with the word "help" in the body of the message.

CancerFax® fax on demand service

Dial 301-402-5874 and listen to recorded instructions.

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